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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* AVINASH C. SAXENA

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Appeal 2008-2742  
Application 09/640,478  
Technology Center 2400

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Decided: January 15, 2009

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Before JOSEPH L. DIXON, ST. JOHN COURTENAY III, and  
CAROLYN D. THOMAS, *Administrative Patent Judges*.

COURTENAY, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

This is a decision on appeal under 35 U.S.C. § 134(a) from the Examiner's rejection of claims 1-20. We have jurisdiction under 35 U.S.C. § 6(b).

We REVERSE.

## INVENTION

The invention on appeal is directed generally to the field of data processing. More particularly, Appellants' invention is directed to a method and system for uniform resource locator transformation (Spec. 1).

## ILLUSTRATIVE CLAIM

Claim 1, which further illustrates the invention, follows:

1. A method for communicating data comprising:
  - establishing at a cache server a first uniform resource identifier and a header portion associated with a first content item;
  - caching a second content item corresponding to the first content item, the second content item identified by a second uniform resource identifier, the second uniform resource identifier comprising the first uniform resource identifier and information from the header portion;
  - receiving a first request at the cache server, the first request requesting the first content item, the first request comprising the first uniform resource identifier and the header portion;
  - comparing the first uniform resource identifier and the header portion to transform criteria to identify a specific transform associated with the first uniform resource identifier and the header portion, the specific transform defining an action to perform on the first uniform resource identifier and the header portion;
  - generating a second request based on the specific transform, the header portion, and the first uniform resource identifier, the second request being associated with the second

content item, the second request generated by performing the action associated with the specific transform on the header portion and the first uniform resource identifier to yield the second uniform resource identifier; and

retrieving the second content item based on the second uniform resource identifier of the second request.

#### PRIOR ART

The Examiner relies upon the following references as evidence in support of the rejection:

Stewart	US 6,389,460 B1	May 14, 2002
Periyannan	US 6,587,928 B1	July 1, 2003

#### THE REJECTION

1. Claims 1-20 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over the combination of Stewart and Periyannan.

#### APPELLANT'S CONTENTIONS

Appellant notes that the Examiner admits that the Stewart reference fails to disclose an ability to compare the first uniform resource identifier and the header portion to transform criteria to identify a specific transform associated with the first uniform resource identifier and the header portion. (App. Br. 9-10; *see also* Ans. 5). Appellant contends that the secondary Periyannan reference also fails to teach or suggest these claimed features (App. Br. 10). In particular, Appellant contends that the portion of Periyannan relied on by the Examiner does not teach a comparison used to

identify a specific transform but instead merely teaches a determination as to whether a request is for a cacheable or non-cacheable object (App. Br. 10; *see also* Periyannan, col. 4, ll. 59-64). According to Appellant, if the request in Periyannan is for a cacheable object, the request is merely passed to the cache. If the request is for a non-cacheable object, the request is merely passed to the content server (App. Br. 10).

Regarding the Examiner's proffered combination of Stewart and Periyannan, Appellant further contends that the Examiner has failed to provide an objective reason that would have prompted a person of ordinary skill in the art to combine the teachings of the Stewart and Periyannan references (App. Br. 7). In particular, Appellant contends that the Examiner has relied on impermissible hindsight reconstruction in combining the Stewart and Periyannan references. (App. Br. 8).

#### EXAMINER'S RESPONSE

In the "Response to Arguments" section of the Answer (pp. 7-11), the Examiner does not directly address Appellant's contention that the combination of Stewart or Periyannan does not teach or suggest comparing the first uniform resource identifier and the header portion to transform criteria to identify a specific transform associated with the first uniform resource identifier and the header portion (*see* independent claims 1 and 11). Regarding the issue of hindsight, the Examiner maintains that modifying the teachings of Stewart with the teachings of Periyannan would have improved Stewart's cache performance (Ans. 9).

## ISSUES

Based upon our review of the administrative record, we have determined that the following issues are dispositive in this appeal:

### ISSUE 1

Has Appellant shown error in the Examiner's finding that the combination of Stewart and Periyannan teaches and/or suggests comparing the first uniform resource identifier and the header portion to transform criteria to identify a specific transform associated with the first uniform resource identifier (as required by the language of independent claim 1 and the equivalent language of independent claim 11)?

### ISSUE 2

Has Appellant shown that the Examiner erred by relying on hindsight in combining the cited Stewart and Periyannan references?

## PRINCIPLES OF LAW

“What matters is the objective reach of the claim. If the claim extends to what is obvious, it is invalid under § 103.” *KSR Int’l Co. v. Teleflex, Inc.*, 127 S. Ct. 1727, 1742 (2007). To be nonobvious, an improvement must be “more than the predictable use of prior art elements according to their established functions.” *Id.* at 1740. Appellants have the burden on appeal to the Board to demonstrate error in the Examiner’s position. *See In re Kahn*, 441 F.3d 977, 985-86 (Fed. Cir. 2006). Therefore, we look to Appellant’s Briefs to show error in the proffered prima facie case.

#### FINDINGS OF FACT

In our analysis *infra*, we rely on the following findings of fact (FF) that are supported by a preponderance of the evidence:

#### THE PRIMARY STEWART REFERENCE

1. Stewart teaches a method of storing an image that includes the following operations: “receiving URL and associated HTTP Request and HTTP Response information; parsing the HTTP Request information and the HTTP Response information to obtain cookies and authorizations contained therein; merging the cookies if related cookies are contained in the HTTP Request and the HTTP Response; forming an image identification string by combining the URL, the merged cookies and the authorizations; hashing the image identification string to produce a hash directory; replacing unpermitted characters in the image identification string with predetermined replacements; dividing the image identification string to form a directory path having a series of individual directories; forming the individual directories of the directory path in the image storage device to the extent not already present; and storing at least one file in a resulting directory identified by the directory path.” (Col. 4, l. 54 through col. 5, ll. 4).

THE SECONDARY PERIYANNAN REFERENCE

2. Periyannan teaches that “[r]equests are identified as being for a cacheable object or a non-cacheable object according to information included in a Uniform Resource Locator (URL) associated with the object.” (Abstract).
3. Periyannan teaches that “[a] router may be . . . configured to recognize a request as being for a cacheable object or a non-cacheable object according to a port on which the request is received and redirect it to a cache as appropriate.” (Abstract).
4. Periyannan teaches that “[i]n a network configuration such as that shown in FIG. 1 . . . when the router 12 receives a request from a client (step 20), a check is made to determine whether the request is for a cacheable or non-cacheable object (step 22).” (Col. 4, ll. 57-61).
5. Periyannan teaches that “[i]f the request is for a cacheable object, the request is passed to cache 16 (step 24) as before.” (Col. 4, ll. 61-62).
6. Periyannan teaches that “where the request is for a non-cacheable object, it is passed directly to the origin content server 18 (step 26).” (Col. 4, ll. 63-64)
7. Periyannan teaches that “the determination as to whether the request is for a cacheable or non-cacheable object (step 22) is made depending upon the port number on which the request is made.” (Col. 5, ll. 5-8).
8. Periyannan teaches modifying a URL by appending a port number to the URL such that the port designation directs the client request to the desired port. (Col. 5, ll. 26-33).



9. Periyannan teaches that “most conventional routers can easily and very quickly make redirection decision based on port numbers.” (Col. 4, ll. 65-67).
10. Periyannan teaches that “[i]t is much more time consuming to make redirection decisions based on (a) free form test that has to be parsed out of some other field (e.g., a path field) in a URL or from information encoded in the header or payload of a data packet.” (Col. 4, l. 67 through col. 5, l. 4).
11. Periyannan teaches that web pages with embedded objects have modified URLs associated with those objects that include port designations that indicate the objects should be cached. (Col. 5, ll. 41-46).

## ANALYSIS

### ISSUE 1

We decide the question of whether Appellant has shown the Examiner erred in finding that the combination of Stewart and Periyannan teaches and/or suggests comparing the first uniform resource identifier and the header portion to transform criteria to identify a specific transform associated with the first uniform resource identifier (as required by the language of independent claim 1 and the equivalent language of independent claim 11).

In the Answer, the Examiner explains that “the transform criteria [in Periyannan] is whether the requested object is cacheable or non-cacheable based on the URL and header information of the request.” (Ans. 5).

We have considered how the Examiner has construed the meaning of the claimed “transform criteria” that identifies a specific transform (*see* independent claims 1 and 11). However, if we adopt the Examiner’s aforementioned reading of “transform criteria” (as applied to Periyannan), we find the Examiner’s construction to be inconsistent with the usage of “transform” as that term is applied in the remainder of the claim. Claim terms are not interpreted in a vacuum, devoid of the context of the claim as a whole. *See Hockerson-Halberstadt, Inc. v. Converse Inc.*, 183 F.3d 1369, 1374 (Fed. Cir. 1999) (“proper claim construction ... demands interpretation of the entire claim in context, not a single element in isolation.”); *ACTV, Inc. v. Walt Disney Co.*, 346 F.3d 1082, 1088 (Fed. Cir. 2003) (“While certain terms may be at the center of the claim construction debate, the context of the surrounding words of the claim also must be considered....”).

Here, as pointed out by Appellant, Periyannan teaches that the determination as to whether the request is for a cacheable or non-cacheable object is made depending upon the port number on which the request is made, where the port number is contained within the URL itself (FF 7-8). In particular, we note that Periyannan’s Web pages *already* have modified URLs (that include a port number designating whether the object should be cached) (FF-11). Therefore, we find that Periyannan’s URLs are not compared with *transform criteria* where (to be consistent with the remainder of the claim) the transform criteria identifies *a specific transform* that defines *an action to perform on the first uniform resource identifier portion* where a second request is generated *based on the specific transform*.

For at least the aforementioned reasons, it is our reasoned conclusion that the teachings of Stewart and Periyannan do not fit together so as to fairly teach or suggest Appellant's claimed invention. Moreover, we find the weight of the evidence generally supports Appellant's contention that the Examiner has taken disparate bits and pieces of subject matter from the Stewart and Periyannan references and combined these elements in an attempt to reconstruct Appellant's claimed invention.

Accordingly, Appellant has shown the Examiner erred in finding that the combination of Stewart and Periyannan teaches and/or suggests comparing the first uniform resource identifier and the header portion to transform criteria to identify a specific transform associated with the first uniform resource identifier (as required by the language of independent claim 1 and the equivalent language of independent claim 11).

## ISSUE 2

We now decide the question of whether Appellant has shown that the Examiner erred by relying on hindsight in combining the cited Stewart and Periyannan references. Although we need not reach this issue to decide this appeal, we nevertheless address the question of hindsight for the sake of completeness.

The U.S. Supreme Court has reaffirmed that "[a] factfinder should be aware, of course, of the distortion caused by hindsight bias and must be cautious of argument reliant upon *ex post* reasoning." *KSR*, 127 S. Ct. at 1742. *See also Graham v. John Deere Co.*, 383 U.S. 1, 36 (1966). Nevertheless, in *KSR* the Supreme Court also qualified the issue of hindsight

by stating that “[r]igid preventative rules that deny factfinders recourse to common sense, however, are neither necessary under our case law nor consistent with it.” *KSR*, 127 S. Ct. at 1742-43.

Here, we agree that a person of ordinary skill in the art at the time of the invention would not have reasonably combined the Stewart and Periyannan references in the manner suggested by the Examiner for essentially the same reasons argued by Appellant in the Briefs.

As pointed out by Appellant, the primary Stewart reference is directed to storing an image according to an image identification string, while the secondary Periyannan reference is directed to a scheme for storing cacheable and non-cacheable objects according to a port number added to a uniform resource locator. (App. Br. 7, ¶2). The Examiner admits that “Stewart is silent to the idea of what steps [should] be performed when it would not be advantageous for the system to attempt to cache information received from a user request.” (Ans. 10.) The Examiner observes that Periyannan teaches a caching system that deals with the issue of what steps to perform on a client request where it is not advantageous to perform caching of all of the information. (*Id.*). Thus, the Examiner proffers that Periyannan’s teaching would have provided an improvement to Stewart’s system by “avoid[ing] wasting operations [by] caching web results that are not in the system’s best interest to perform web proxy services on.” (*Id.*).

Based upon our review of the evidence before us, we agree with the Examiner that “Stewart is silent to the idea of what steps [should] be performed when it would not be advantageous for the system to attempt to cache information received from a user request.” (Ans. 10). Therefore, we

find there is no problem or deficiency in the teachings of Stewart that would have reasonably led an artisan familiar with Stewart to look to Periyannan's teachings of recognizing a request as being for a cacheable object or a non-cacheable object according to a port on which the request is received (FF 3).

We have fully considered the Examiner's arguments (*see* Ans. 8-10). However, we are unconvinced that an artisan possessing common sense would have combined the Stewart and Periyannan references in the manner suggested by the Examiner without having the benefit of the claimed subject matter.

#### CONCLUSION OF LAW

Appellant has established that the Examiner erred in rejecting claims 1-20 under 35 U.S.C. § 103(a) as being obvious over the combination of Stewart and Periyannan.

#### DECISION

We reverse the Examiner's decision rejecting claims 1-20.

#### REVERSED

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